CSCI 361: Reading Assignment # 6

Your Name: _____

Due: Thursday, Oct 3, in class

Assigned reading for this lecture:

- Sipser Third Edition Chap 2.2 (Push-down Automata)

Questions:

1. Similar to finite automata, are deterministic and nondeterministic push-down automata equivalent in their power?

2. In Definition 2.13, the transition function of a push-down automata is defined as

   $$\delta : Q \times \Sigma_\varepsilon \times \Gamma_\varepsilon \longrightarrow \mathcal{P}(Q \times \Gamma_\varepsilon)$$

   Describe this transition informally in English using the stack and "push" and pop" terminology.

3. Consider the PDA in Figure 2.15. What is the significance of the $ tape symbol?